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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susana CURATOLO

Conf. No.: 3621

Serial No.: 10/751,946

Art Unit: 3742

Filed: January 7, 2004

Examiner: Mark H. PASCHALL

For: MELTING AND VAPORIZATION APPARATUS AND METHOD

REQUEST FOR RECONSIDERATION AFTER FINAL

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Barnes & Thornburg Customer No.:

23646

U.S. Patent and Trademark Office

Sir:

In response to the official Final Office Action dated February 24, 2006, Applicant requests reconsideration of the final rejection.

Claims 1, 2, 6-18, 21 and 22 stand rejected under 35 U.S. C. § 103 as unpatentable over Miyazaki in view of Piper. This rejection is respectfully traversed. The allowance of claims 3-5, 19 and 20 is acknowledged.

Independent Claim 1 is directed to a method of melting a solid including inserting the solid into a tapered envelope; sealing the envelope at a preset pressure and heating the solid in an oven at a temperature substantially below the melting temperature of the solid at the preset pressure for time sufficient to melt the solid.

The heating limitation of Independent Claim 6 is heating the substance in an oven at an oven temperature below the vaporizing temperature of the substance at the preset pressure and for a time sufficient to generate electron emissions from the substance and create the plasma flow which allows vaporization of the substance at an oven temperature below the vaporizing temperature of the substance at the preset pressure.

The heating limitation of Independent Claim 9 is heating the substance in an oven at an oven temperature below the vaporizing temperature of the substance at the preset pressure and for a time sufficient to vaporize the substance.

The heating limitation of Independent Claim 21 is heating the substance with energy to produce a temperature below the vaporizing temperature of the substance at the preset pressure and for a time sufficient to generate electron emissions within the envelope and